

**Codrington’s Coastal Zone Newsletter**

The Newsletter of Codrington’s Coastal Zone Management Unit December 2009

The MYP5 class of Codrington School took a visit to the CZMU (Coastal Zone Management Unit) on Tuesday 8th December  
2009.While they were there they met Antonio Rowe who   
gave them a power point presentation about the three  
projects that the CZMU have been working on to repair the  
damage that the coast has faced. The three projects are:   
- Welches Beach   
- The South Coast Boardwalk   
- The West Coast Boardwalk

On Welches beach the water was splashing over into the  
road, then on the south coast where they were planning to  
put the boardwalk the beach was having a lot of erosion  
problems and then lastly on the west coast where they  
wanted to put the boardwalk they were also having a lot of  
problems with beach erosion. These issues were causing  
serious problems so the CZMU had to try and do something  
about them. They had made many different plans which had  
to keep being altered as some people did not agree with  
them and also there were things that could be improved.  
  
Since 1983 there has been many changes on the beaches,  
mainly the west coast beaches. No one really knew what was  
 exactly happening and why so the CZMU decided to do a  
diagnostic test to see what was happening. Some people do  
not think that it is much of a big deal if the beaches erode  
away, but this would mean that the coral reefs of the west  
coast would get damaged due to the fact that the coral reefs  
protect from storms and the sand comes in from the coral  
reefs, this would mean that the reefs would die. Not only  
would the reefs die but the fish and other living organisms  
 that live on it would also die. Once they had established that  
 they had to do something about this all they then made a rule  
 in 1998 that no buildings etc could be 30 meters from where  
 the high water break mark began.   
 The CZMU realized that there was not as much erosion on the  
 east coast compared to the west and south. This was because  
 the east coast is not as developed as the others. By looking  
 back into the 1960’s they realized that the coastal line had  
 changed dramatically because you could walk from Oistins to  
 Bridgetown on the sand on the beach back then, but now, you  
 can’t even walk for five minutes before you get to a part of the  
 beach that has eroded so much that there is nothing to walk on  
 you have to wade through water.  
  
 In October of 2002 a loan agreement was signed to begin  
 the coastal infrastructure programme. In total the loan was  
 $24.2 million, it took 4 years to plan and organize and then 2  
 years to build etc. This was to improve the management on the  
 coastal line.   
  
 The CZMU had many different original projects that they are  
 supposed to finish in order for the coast line to be partially  
 protected against erosion. These were:  
 - Rockley to Coconut Court  
 - Crane Beach  
 - Holetown Beach   
 - Welches Beach   
 - Womans Bay  
 - Holetown Lagoon (Near second street)  
 - Tent Bay (Fishermen)  
 - Walkers Savannah

The CZMU have to do analysis’s before they finish a plan of a project. They have programs that tell them how much the sand on the beaches move, the waves direction etc. They collect the sand to see the size of the grains, they also then have to understand the height, direction velocity of the wave. They then have to dive to see the coral reefs etc. All of this can take up to 5 months. They will then go and look at the model that they have built and collaborate with the information that they have just recorded and the information on the model. The Models can be either on the computer or they can be physical models that are scaled down from their real size although the sand cannot be scaled down. The physical mode has to be exact in size and is usually done in  
Canada.

The first project that they faced was Welches beach, which  
was because of the beach erosion and the waves were  
splashing onto the road. There were three solutions to this  
problem and they were:   
1) Build a high sea wall  
2) Widen Beach  
3) Move Road inward

When they build any groynes they automatically put 5500 cubic meters of sand west of the eastern groyne. They get this sand from the port because when the port had to fit in a large boat they had to take out some sand. They got the stones for Welches beach from Canada, these stones were not that expensive and they are denser. Once the groynes have been put it and the beach begins to build back up, this increases the value of the properties on the beach and also also more access to the beach for other locals. Welches cost approximately 2.7 million BDS to build and it took about 10 months.

Right now, Welches has built back up its beach because of the groynes and the water from the sea no longer splashes up into the road. This means that vehicles can drive past the road and not have to worry about not being able to get through and also there is one more beautiful Barbados beach saved from erosion.



The South Coast Boardwalk was built because of all the erosion that was happening, for example: on the beach by KFC there was just boulders trying to stop the water from the sea reaching the car park. Now since the boardwalk has been built there are beaches along the boardwalk. This is now a nice place for people to take walks and they do not have to worry about wading through the water. The long stretch of land in which the boardwalk was built goes from Accra to Coconut Court. It is made out of the same granite rock as Welches from Canada that acts as a protective barrier to the coast and the wooden flooring is made from hard wood from Guyana. There are also a couple of groynes that are on different sides of the boardwalk which is party the reason why the beaches have built up so well and now look beautiful, with the turquoise blue sea and the white thin grains sand.

It was approximately 18.3 million to build the southcoast boardwalk.



The other benefits of the south coast boardwalk is that it is a great tourist attraction because there are a lot of restaurants along the boardwalk and also there are such wonderful beaches that have now built up.

Thirdly, there is the west coast boardwalk which has basically the same principle as the south coast boardwalk. This one also attracts the tourists and also has small beaches now due to the fact that the groynes have helped build back up the beaches. It is more of a concrete walkway compared to the south coast which is made of wood. This boardwalk is made up of concrete and the same granite rocks as a protective barrier in front of the concrete. These are the same rocks used in the other projects which do not erode like the limestone boulders. It has done good for the west coast because it has built back up the beach in front of the old cheffette and by the new beachlands development. This boardwalk runs from Zaccios restaurant, Holetown to the beginning of Sandy Lane beach. The point of building a boardwalk on the west coast was to expand the beach and also allow more public access for people to use. It began building in march 2009 and cost approximately $6.8 million BDS. It took 8 months to complete which means that it finished building around October 2009. West coast does not have a boardwalk made of wood because the winter swells would lift up the boards, so instead they have it made from cement.



**Cheffette beach built back up by the groynes**

On the beach in front of the hotel Coral Reef there has been some serious erosion, so the owners of the hotel had to pay to put two groynes in two years ago and now their beach is fully rebuilt.



This is how far the erosion went before the groynes were put in.

This was the beach before it went through erosion.

But now, everything has been restored back to its original state.

To sum everything up, this months article was about how much erosion can actually do to our coastal line. It really shows that we actually have to do something about it when we see it happening. If our coastline is affected then our tourism level will also go down and that will not be good for our island in the long run. MYP5 have learnt a lot about Coastal management and it has opened our eyes a lot towards this situation. The CZMU is a great place to go to and ask any questions you have about any of these issues, they can really help you understand everything fully.